### NEW NORTH AMERICAN TACHINIDAE

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Seven new species of diptera belonging to four different tachnid genera are described in the present paper. Type or paratype specimens of all the species are in either the U. S. National Museum or my own collection.

## Anetia parvula n. sp.

Male.—Front at vertex 0.22 of the head width (average of five, 0.20; 0.22; 0.21; 0.20; 0.21), not widening to middle thence gradually so downward; parafrontals blackish, with shining gray pollen; median stripe dark reddish-brown, fully twice the width of one parafrontal except at antennae; inner verticals rather small, the outer pair not developed; ocellars proclinate; frontal bristles extending to or slightly below the middle of second antennal segment, uppermost two or three bristles suberect and but little longer than the preceding ones which are directed inward; entire face including the cheeks and posterior orbits covered with subshining cinereous pollen; antennae black, extending almost to oral margin, third segment two and one-half to three times the length of second; arista thickened on about the proximal fourth, darker and very slender beyond, penultimate segment short; parafacial bare, on narrowest part barely exceeding one-half the width of third antennal segment; face moderately receding, its ridges bearing a few bristly hairs next to the vibrissae, which are situated about on level with the mouth; cheek reddish in ground color, sparsely clothed with black hairs below the middle, about onesixth the eye height; proboscis short and fleshy; palpi black; eyes bare; back of head gray pollinose and clothed with short pale hairs which extend about to the upper fourth.

Thorax black, gray pollinose; mesonotum subshining behind the suture with denser pollen in front which is interrupted by four black stripes, the outer pair expanded to roundish spots stopping shortly in front of suture; scutellum black and subshining. Chaetotaxy: Humeral 2; posthumeral 1; notopleural 2; presutural 2 (inner one small or hairlike); acrostichal 3, 3; dorsocentral 2, 3; intraalar 3; supraalar 3; postalar 2; sternopleural 1, 1; pteropleural 1 (small); scutellum with three lateral bristles, no apicals, the subdiscal pair hardly differentiated from the hairs on the disk; postscutellum lightly dusted with gray pollen, membranous above; calypters semitransparent, white, the margins with a faint tawny tinge; in-

frasquamal hairs absent.

Abdomen rather slender, shining black; segments two and three with silvery bands on basal third, the pollen on the fourth very thin and inconspicuous; basal segments each with a pair of median marginals besides a pair of discal bristles on the second; third segment bearing one pair of discals and a marginal row of eight or ten; fourth with a discal and a marginal row; genital segments small, reddish-black; inner forceps slender, divided beyond the middle and slightly divergent, base behind bearing numerous black hairs directed backward; outer forceps yellowish, about as long as inner ones but distinctly broader in profile; fifth sternite black, broadly and deeply cleft.

Legs slender, black; front pulvilli moderately elongated and almost equal the length of last tarsal segment, the others distinctly shorter; middle tibia with one bristle on the outer front side; hind tibia with several irregular bristles on the outer posterior edge, the median one largest, with one of about equal

size situated on the inner hind side.

Wings a little elongate, with a uniform brown tinge the hind border slightly paler; fourth vein with a broadly rounded bend curving outward shortly before the apex and joining costa near the exact wing tip; first posterior cell narrowly open; third vein with two or three small hairs at base; last section of fifth vein short; hind cross vein almost perpendicular to fourth which it joins about midway between small cross vein and bend; epaulets black; costal spine small.

Female.—Front at extreme vertex 0.244 of the head width (average of five, 0.23; 0.25; 0.23; 0.25; 0.26); two proclinate orbital bristles present; outer verticals not developed; wings somewhat shorter and broader and the abdomen more robust than in male; genitalia with a retracted short chitinized

piercer; all the claws and pulvilli small.

Length, 3.5 to 5 mm.

Described from 10 males and 43 females in my collection from College Station, Texas, April to October, 1919–1930 (H. J. Reinhard).

Holotype, male, deposited in the U. S. National Museum.

The species is less robust in build than *Anetia dimmocki* Aldrich, to which it is related. It is further distinguished by having only two sternopleural bristles, distinctly infuscated wings, etc.

# Anetia flavipalpis n. sp.

Female very closely resembles A. parvula, from which it differs in the following characters: Front at the vertex 0.264 of the head width in the one specimen, the sides densely gray pollinose and about equal the width of the middle stripe; outer

verticals almost half as large as the inner pair; parafacial on narrowest part as wide as third antennal segment; cheek about one-fourth the eye height; palpi yellow. Thoracic chaetotaxy as in parvula but with three sternopleurals and only two presutural acrostichals; mesonotum and scutellum uniformly gray pollinose. Abdomen with rather changeable gray pollen which on segments two and three extends thinly to the middle at the sides; denser on the basal half of the fourth segment above; genitalia with a moderately large curved piercing organ which is broadly grooved on the hind side.

Length, 5 mm.

Male.—Unknown.

Described from one female specimen in my collection, College Station, Texas, April 27, 1930 (H. J. Reinhard).

The wider parafacials, yellow palpi, and three sternopleurals readily distinguish the species from parvula.

### Dexodes insignis n. sp.

Male.—Front rather broad, at vertex 0.267 of the head width (average of four, 0.25; 0.28; 0.26; 0.28), widening but slightly below; parafrontals sparsely haired, with dense gray pollen which is sometimes faintly tinged with yellow; median stripe reddish-brown, a little wider than one parafrontal on most of its length; verticals one pair (inner) developed; orbitals absent; ocellars small, proclinate; frontal bristles extending to base of third antennal segment, uppermost two or three bristles rather stout and reclinate, the preceding ones directed inward; entire face gray pollinose, the sides bare, narrowed downward; facial ridges with several bristly hairs above the vibrissae, the latter situated about on level with the mouth; antennae black, nearly as long as face, third segment nearly four times the length of second; arista thickened on proximal fourth and very slender beyond, basal segments short; cheek reddish in ground color, gray pollinose, sparsely haired on lower part, about one-seventh the eye height; proboscis short, labella large and fleshy; palpi yellow, somewhat thickened apically and beset with numerous black hairs; eyes bare; back of head gray pollinose and moderately clothed with pale or whitish hairs.

Thorax black, gray pollinose; mesonotum marked with four black vittae, the outer pair broader and interrupted at the suture; scutellum black, dusted with gray pollen. Chaetotaxy: Acrostichal 3, 3; dorsocentral 3, 3; intraalar 3; supraalar 3; postalar 2; presutural 2; notopleural 2; posthumeral 3; humeral 3; pteropleural I (small); sternopleural 2, I; scutellum with three laterals (the hindmost pair large, divergent), apical

bristles absent, disk bearing numerous short erect hairs besides a well-developed pair of preapical bristles; postscutellum normally developed; infrasquamal hairs absent; calypters semi-

transparent, white, the rims tinged with yellow.

Abdomen rather slender, shining black, the basal half of last three segments with changeable gray pollen which extends on the venter; first segment with a well-developed pair of median marginal bristles; second with a discal and a marginal pair, the latter slightly longer; third with a discal pair and a row of 10 or 12 stronger marginals; fourth bearing a discal and a marginal row and numerous erect bristly hairs on apical half above.

Legs black, all claws and pulvilli small; middle tibia with one stout bristle on outer front side; hind tibia with a row of uneven bristles on outer posterior side one near middle longer

and moderately stout.

Wings hyaline, rather short and broad; fourth vein with a wide rounded bend ending about half the length of hind cross vein before the wing tip; first posterior cell narrowly open; veins bare except third which bears two to four setules near the base; hind cross vein oblique to fourth which it joins nearer bend than small cross vein; last section of fifth vein about one-third the length of the preceding section; costal spine small.

Female.—Front at vertex 0.291 of the head width in the one specimen and hardly wider at base of antennae; two proclimate pairs of orbitals present; outer verticals poorly developed; ocellars also small; third antennal segment about two and one-half times the length of second; abdomen broader than in male

the apex pointed; genitalia without a piercing organ.

Length, 5.5 to 7 mm.

Described from four males and one female in my collection, College Station, Texas, June to October, 1919–1928 (H. J. Reinhard). Holotype, male, deposited in the U. S. National Museum.

Traces to *D. epilachnae* Aldrich in Curran's key (Can. Ent., LIX, p. 20), from which it differs in having the claws and pulvilli short in both sexes, front broader, and the wings not extending beyond the tip of the abdomen. There are other minor differences.

# Dexodes conica n. sp.

Male.—Front at vertex 0.215 of the head width in the single specimen, widening rather rapidly on anterior part; parafrontals with shining gray pollen becoming thinner near vertex; median stripe reddish-brown, wider than one parafrontal except at base of antennae; inner verticals erect, of moderate

length, the outer pair barely half as large; ocellars proclinate; orbitals absent; frontals about 13 in the row, descending to apex of second antennal segment, uppermost three bristles stouter and suberect, the preceding ones directed inward; parafacial bare, with shining gray pollen hardly silvery; face moderately excavated, somewhat receding, gray pollinose, its ridges bearing bristly hairs on the lower fourth or less; vibrissae situated on level with front edge of the mouth; antennae black, slightly shorter than face, third segment wider than parafacial on narrowest part and less than twice the length of second segment: arista slender beyond the thickened proximal fourth, microscopically pubescent, basal segments short; eyes bare; proboscis short and thick, labella large; palpi yellow infuscated near base, hardly thickened apically and bearing numerous black hairs; cheek gray pollinose, bearing a few black hairs below, about one-fifth the eye height; back of head gray pollinose and clothed with rather sparse pale hairs.

Thorax black, lightly dusted with gray pollen; mesonotum subshining the dark stripes poorly defined before the suture and less apparent behind; scutellum black, with very thin gray pollen which appears denser in an extreme flat rear view. Chaetotaxy: Acrostichal 2 or 3, 3; dorsocentral 2, 3; humeral 3; posthumeral 2 (anterior one small); notopleural 2; presutural I (inner one not developed); intraalar 3; supraalar 3; postalar 2; pteropleural I (small); sternopleural 2, I; scutellum with three lateral bristles the hindmost large, divaricate, without any smaller bristles between them, disk bearing numerous erect fine hairs; sides of postnotum beneath calypters with a single minute hair on one side none on other; postscutellum ordinary, gray pollinose; calypters opaque, white the margins

yellow.

Abdomen rather narrow and conical, black, the last three segments entirely covered with dull thin gray pollen, hairs on the upper surface of each very sparse, short and erect; first segment with two pairs of median marginals, the inner ones larger; second with a pair of discals before the middle, behind these a smaller and more widely spaced pair, besides a marginal row of 10 or 12; third segment with a discal and a marginal row of long stout bristles; fourth with three or four irregular rows on apical half.

Legs rather long, black; middle tibia with two bristles near middle on outer front side; hind tibia with an uneven row of bristles on outer posterior edge, one near middle long and moderately stout; all claws and pulvilli enlarged and about as

long as the last tarsal segment.

Wings somewhat elongate, hyaline with a yellow tinge along the costa and at base; third vein with three setules at base; fourth with a rounded oblique bend, reaching margin about half the length of hind cross vein before the exact wing tip; first posterior cell open; last section of fifth vein short; hind cross vein oblique, joining fourth somewhat nearer bend than small cross vein; epaulets black; costal spine small.

Length, 8.5 mm.

Female.—Unknown.

Described from one male specimen, Madison, Wisconsin, June

12, 1930, without collector's label.

Resembles *D. epilachnae* Aldrich, from which it is readily separated by the presence of two anterodorsal bristles on the middle tibiae; wholly gray pollinose abdomen, with a complete row of discal bristles on third segment, and the third antennal segment hardly twice the length of second.

## Erycia flavitarsa n. sp.

Male.—Front 0.294 of the head width (one specimen), widening moderately before the middle and rather prominent below; parafrontals gray pollinose with a light yellow tinge, clothed with fine black hairs; median stripe dark reddishbrown, narrower than one parafrontal on entire length; inner verticals strong, the outer ones hardly distinguishable from the adjacent hairs; ocellars large, proclinate; orbitals absent; frontal bristles extending to level with insertion of arista, directed inward except the two uppermost bristles which are reclinate and stouter; entire face including the cheeks gray pollinose; parafacial bare, on lower part somewhat narrower than third antennal segment; face moderately receding, the ridges divergent downward, bearing a few bristly hairs on lower extremity; vibrissae a trifle above the front edge of the mouth; antennae about three-fourths the length of face, basal segments obscurely reddish, third entirely black and four to five times the length of second; arista black, microscopically pubescent, thickened on about the proximal third, basal segments short; eyes practically bare; cheek clothed with longish black hairs, fully one-fourth the eye height; proboscis short, thick and fleshy, labella large; palpi yellow, beset with numerous black hairs; back of head gray pollinose and thickly clothed with pale hairs.

Thorax black, gray pollinose; mesonotum marked with four dark stripes which are not very well defined; scutellum red on apical half, gray pollinose. Chactotaxy: Acrostichal 3, 3; dorsocentral 3, 4; intraalar 3; supraalar 3; postalar 2; humeral 4; posthumeral 3; presutural 2; notopleural 2; pteropleural 1 (small); sternopleural 2, 1; scutellum with three lateral, a well-developed decussate apical and a discal pair,

disk covered with fine hairs intermixed with suberect stronger bristles on apical half; infrasquamal hairs absent; postscutellum normally developed; calypters opaque, white, the rims

tinged with yellow.

Abdomen black, last three segments largely gray pollinose with the narrow hind margins at most subshining in certain lights, hairs along the median line somewhat longer and erect; basal segments each with a pair of median marginals, the second segment also with a stout discal pair; third bearing four or five irregular spaced discals and a row of about 14 stronger marginals; fourth with numerous bristles on the apical two-thirds above; inner genital forceps black, rather long and divided, unusually thick and slightly bowed in profile view with the apex obliquely subtruncate, clothed with fine brown and black hairs on inner and hind surface; outer forceps reddish, rather strongly bowed forward, a trifle longer and distinctly narrower than inner ones, tips evenly rounded or blunt, outer surface punctured or rough bearing some minute black hairs on basal half; fifth sternite black, narrowly and deeply cleft.

Legs black, tarsi yellow; middle tibiae with two bristles on outer front side; hind tibia bearing one or two stouter bristles in the row on the outer hind side; all claws and pulvilli en-

larged.

Wings hyaline; fourth vein with a rectangular stumpless bend, thence oblique to costa narrowing the first posterior cell which is open well before the wing tip; third vein with three or four hairs at base; hind cross vein oblique, reaching fourth much nearer bend than small cross vein; costal spine vestigial.

Female.—Front 0.351 and 0.338 of the head width in two specimens, pale yellow pollinose; two proclinate orbitals; outer verticals rather stout but shorter than inner pair; proximal antennal segments including base of third red, the latter segment bardly four times the length of second; abdomen broader than in male, the hairs on upper surface depressed, hind margins of intermediate segments shining black; genitalia retracted, but evidently not adapted for piercing; all claws and pulvilli short.

Length, 9 to 10.5 mm.

Described from three specimens as follows: one male and one female, Monrovia Canyon, California, July 6 and 12, 1930 (C. H. and D. Martin); one female (holotype), Whittier, California, July 14, 1930 (D. Martin). The holotype is returned to Chas. H. Martin.

Similar to *Erycia celer* Coquillett, but at once distinguished by the yellow tarsi in both sexes, and the longer genital forceps in the male.

## Erycia levata n. sp.

Smaller than E. flavitarsa, which it closely resembles except as follows: Front in male 0.232 of the head width (five specimens measured), prominent below in profile; face strongly receding, the sides on narrowest part about one-half the width of third antennal segment which is hardly four times longer than the second. Thoracic chaetotaxy as in flavitarsa; mesonotum behind the suture and scutellum thinly dusted with gray pollen and subshining in most angles. Abdomen shining black on the broad apices of last three segments above, the intermediate ones with rather thin reflecting gray pollen on the basal margins, fourth with thicker pollen which extends beyond the middle at the sides; genital forceps about as in flavitarsa, but the inner ones distinctly narrower and almost straight behind in lateral view, the apex rounded or blunt; the outer pair bowed forward on apical third with the hind margin evenly arcuate to the pointed tip. Legs entirely black.

Length, 7.5 mm. Female.—Unknown.

Described from five specimens as follows: one, Hood River, Oregon, June 8, 1917 (F. R. Cole); one Olympia, Washington, July 27, 1933 (C. H. Martin); two, Yelm, Washington, June 9, 1933 (J. Wilcox); and one (holotype) from California without precise locality, May 19, 1927, no collector's label.

# Phorocera omissa n. sp.

Belongs to the subgenus *Parasetigena*. In Aldrich and Weber's key (Proc. U. S. N. M., vol. 63, p. 51), traces to *tachinomoides* from which it differs most essentially in lacking the tuft of dense hairs before the middle coxae; the inner forceps of the genitalia are shorter, less strongly carinate behind and thinner in profile; the antennae are longer approximating the height of face. Additional differences are mentioned in

the following description:

Male.—Front at narrowest part (before triangle) 0.306 of the head width (average of five, 0.33; 0.30; 0.30; 0.31; 0.29), moderately prominent below; parafrontals with gray pollen which is usually tinged with yellow especially on the upper part; frontal stripe dark brown, at middle about equal the parafrontal width; verticals one pair (inner) developed, reclinate; ocellars strong, proclinate; frontals seven to ten in number, the two uppermost strong and reclinate those below smaller and directed inward, the row descending slightly below the insertion of arista; face gray pollinose, moderately excavated, its ridges with a row of stout bristles extending above

level of the lowermost frontal; parafacial with dense subshining gray pollen, bare, on narrowest part below about as wide as third antennal segment; cheek black-haired and gray pollinose, about one-seventh the eye height; antennae black the second segment reddish and about one-sixth the length of third; arista reddish-black, thickened on basal two-fifths, penultimate segment only slightly longer than wide; proboscis short, labella fleshy; palpi yellow, bearing black hairs on apical half; eyes hairy; back of head gray pollinose, thickly clothed with pale gray or whitish hairs.

Thorax gray pollinose, with four rather narrow dark dorsal stripes which are usually distinct, the outer ones interrupted at suture and extend almost to base of scutellum; the latter reddish on apex, gray pollinose. Chaetotaxy: Acrostichal 3, 3; dorsocentral 3, 4; humeral 4; posthumeral 2 or 3; notopleural 2; intraalar 3; supraalar 3; postalar 2; pteropleural 1; sternopleural 2, 1; scutellum with 3 lateral besides a small decussate upturned apical pair, disk covered with coarse erect hairs; postscutellum dusted with gray pollen; calypters opaque,

white.

Abdomen black the sides faintly reddish, with gray pollen which extends beyond the middle of the intermediate segments above, rather sharply limited on sides of third but continuing on venter along base of second; fourth segment with dense pollen which is also sharply limited at the sides, the apical half or more shining black; a dark median vitta usually apparent; segments one and two with a pair of median marginal bristles (smaller on first); third with a marginal row of about ten; fourth bearing a discal and a marginal row besides numerous weaker bristles along the sides; genital segments blackish; the united inner forceps rather slender, tapering to an acute apex, behind carinate to middle or slightly beyond and thickly clothed with rather short brownish pile except at extreme apex; outer forceps very thin and tapering, red, the apex darker beset with numerous black hairs; fifth sternite broadly and deeply cleft, the lobes dark, bearing a few slender black hairs.

Legs black; middle tibia with two stout and two smaller bristles on the outer front side; hind tibia outwardly ciliate with several longer bristles; claws and pulvilli about of equal size and exceeding the apical tarsal segment in length.

Wings hyaline; bend of fourth vein almost rectangular with a long fold; first posterior cell open far before tip of wing; third vein with about five hairs at base; last section of fifth vein approximating half the length of the preceding section; costal spine small.

Female.—Very similar to claripennis. Front at vertex 0.368

of the head width (average of five, 0.37; 0.36; 0.38; 0.37; 0.36); third antennal segment black, about three times the length of second which is wholly red; two pairs of proclinate orbitals present; outer vertical bristles about one-half as long as the inner ones; last three abdominal with the shining black hind margins narrower than in male, the pollen on last two segments extending on the venter; claws and pulvilli short.

Length, 6 to 10.5 mm.

Described from 51 specimens. In my collection 39 males and 9 females from College Station, Texas, April to November, 1917–1933, and I male, Prairie View, Texas, June 18, 1933, (H. J. Reinhard). In the University of Arkansas collection I male, Washington County, Arkansas, reared from *Eurymus eurytheme* Boisduval, June 12, 1932, by Dwight Isely. In D. G. Hall's collection I male from Charleston, South Carolina, October 19, 1930 (D. G. Hall).

Holotype, male, from College Station, Texas, in the U. S. Na-

tional Museum.

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